Appendix A

ICDF Cell 2 Excavation Sequence

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ICDF Cell 2 Excavation Sequence

1. Section 4 on drawing C-303 Sheet 1 shows the existing conditions at the end of cell 1 construction.

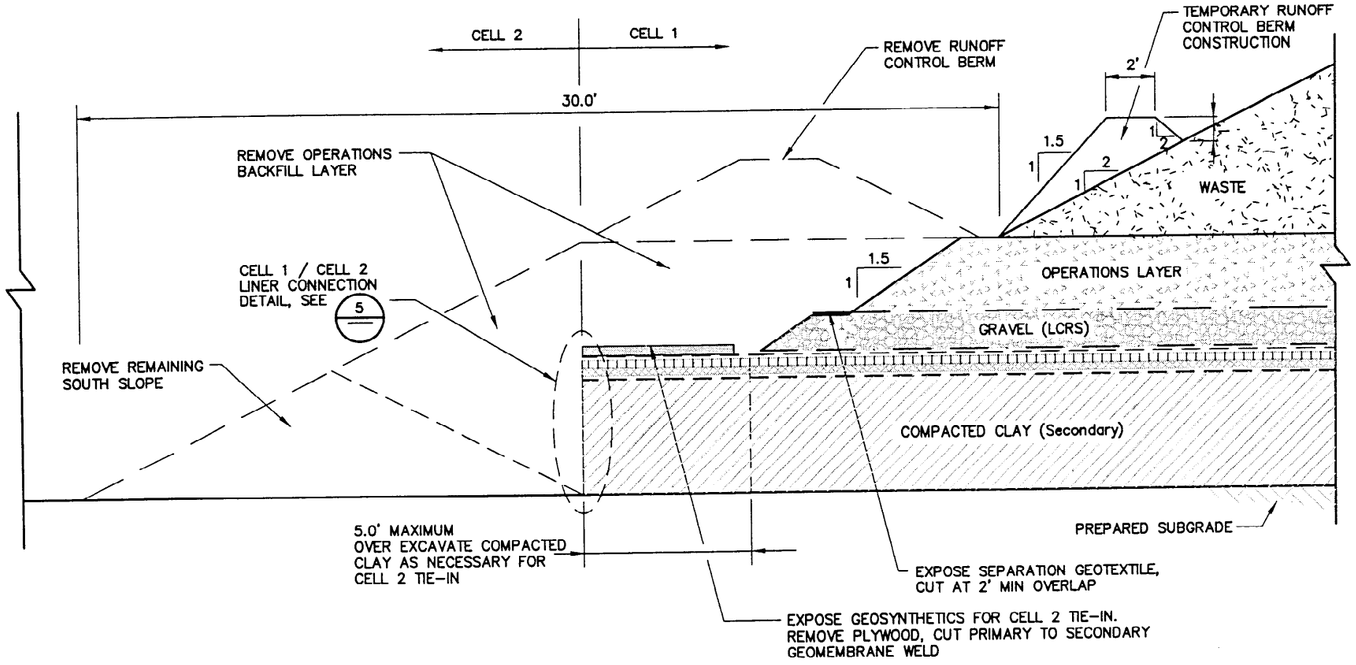
2. Section 2 on drawing C-303 Sheet 1 shows how the primary and secondary liner systems will be welded to prevent potential water from the cell 2 area entering the leak detection system.

3. The Cell 2 excavation section on drawing C-303 Sheet 1 shows how cell 2 will be excavated while maintaining protective soil cover over the Cell 1 liner system termination. This protective soil cover will be maintained until the majority of the liner systems are installed in Cell 2.

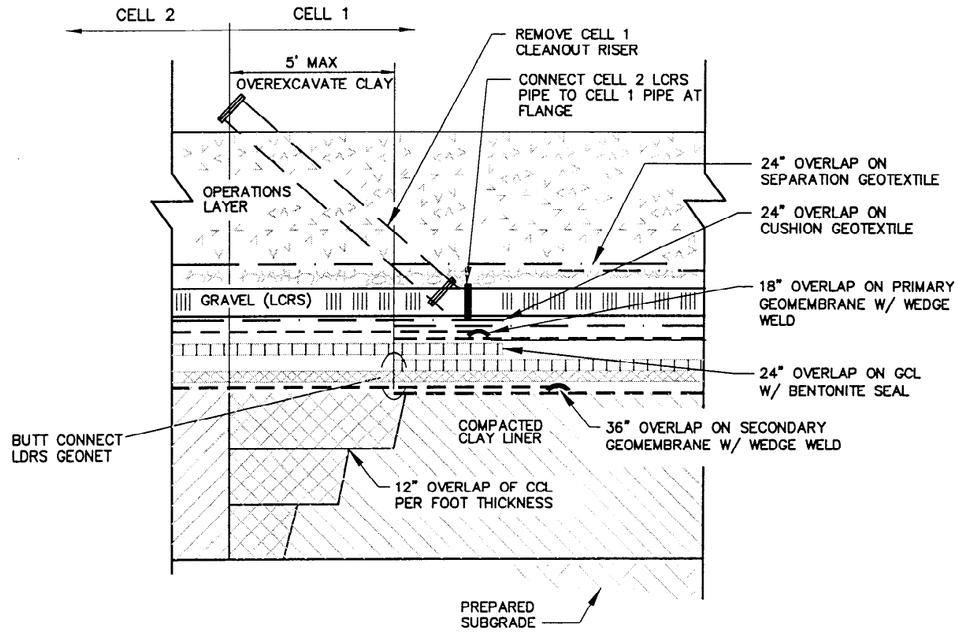
4. After the majority of the liner systems are installed in Cell 2, the connection between Cell 1 and Cell will be made by excavating the materials as shown in Section 3 on drawing C-303 Sheet 2.

5. The specific proposed overlaps of the different liner and geosynthetic materials are shown in Section 5 on drawing C-303 Sheet 2.

REVISIONS		
REV	DESCRIPTION	EFFECTIVE DATE:
0	90% DESIGN SUBMITTAL	15 OCTOBER 2001



3 / C-302 CELL 2 EXCAVATION / CELL 1 LINER EDGE EXPOSURE
SCALE: NONE



5 CELL 1 / CELL 2 LINER CONNECTION DETAIL
SCALE: NONE

PRELIMINARY
NOT FOR CONSTRUCTION

INEEL (Idaho National Engineering & Environmental Laboratory) BECHTEL BWXT IDAHO, LLC
CH2MHILL MONTGOMERY WATSON

SUBCONTRACT NO.	S01-588058
REQUESTER:	JAY G DEHNER
DESIGN:	D MARK KINZEL
DRAWN:	
PROJECT NO.	
SPEC CODE	
FOR REVIEW/APPROVAL SIGNATURES SEE DAR NO.	DAR
EFFECTIVE DATE:	

CELL 2 SECTIONS AND DETAILS

SIZE	CAGE CODE	INDEX CODE NUMBER (ABLA / TYPE / CL / ORIG)	DWG-	REV
D		B21 / 0100 / 02 /	C-303	0
			SHEET 2 OF 2	CPP

SCALE: AS SHOWN

REVISIONS		
REV	DESCRIPTION	EFFECTIVE DATE:
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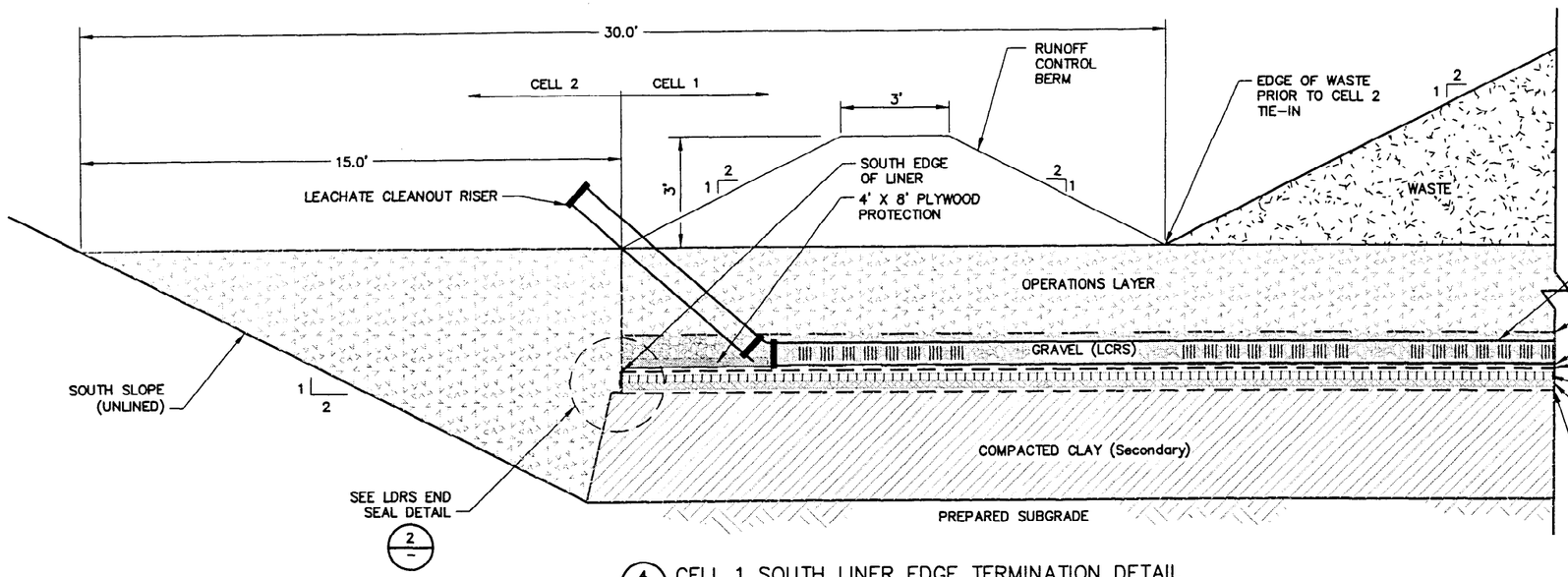
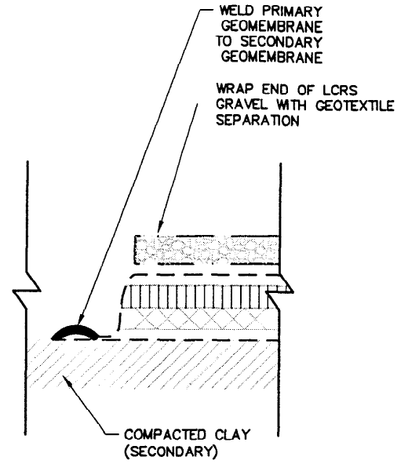
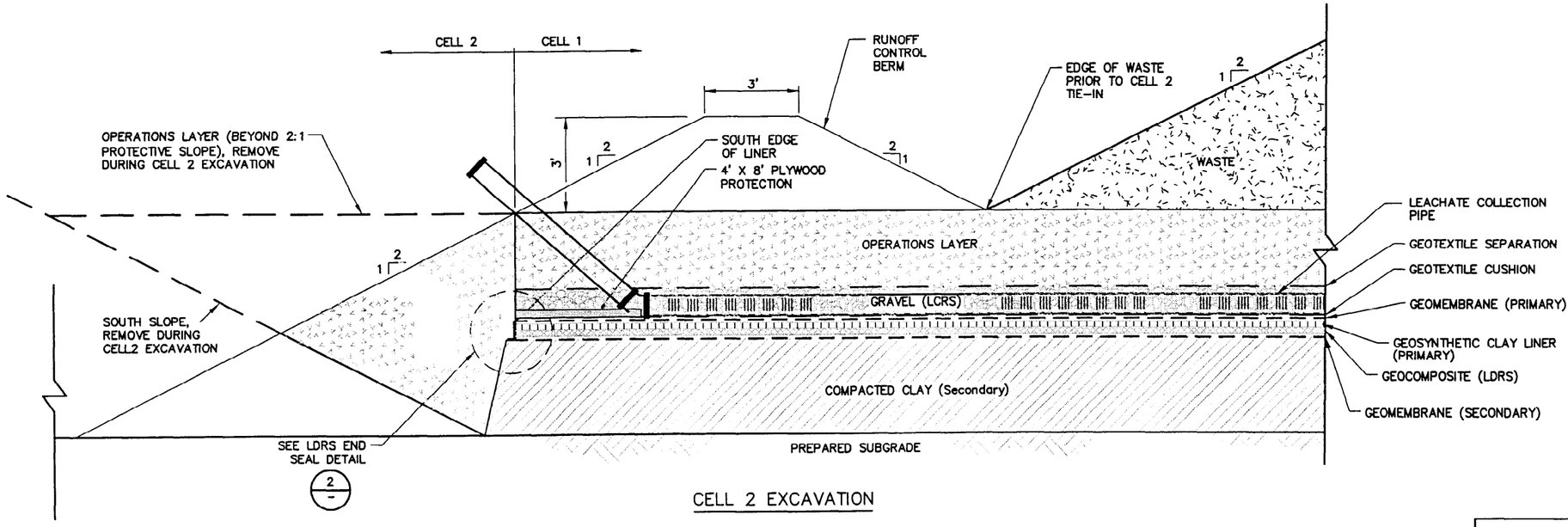


4 / C-302 CELL 1 SOUTH LINER EDGE TERMINATION DETAIL



2 / C-302 LDRS END SEAL DETAIL
SCALE: NONE



CELL 2 EXCAVATION

INEEL
CH2MHILL MONTGOMERY WATSON

SUBCONTRACT NO.	S01-588058
REQUESTER:	
DESIGN:	JAY G DEHNER
DRAWN:	D MARK KINZEL
PROJECT NO.	
SPEC CODE	
FOR REVIEW/APPROVAL SIGNATURES SEE DAR NO.	DAR
EFFECTIVE DATE:	

INEEL CERCLA DISPOSAL FACILITY (ICDF)

CELL 2 SECTIONS AND DETAILS

SIZE	CAGE CODE	INDEX CODE NUMBER AREA	TYPE	CL	ORIG	DWG-	REV
D		B21	0100	02		C-303	0

SCALE: AS SHOWN | CPP | SHEET 1 OF 2

Appendix B

Landfill Operations Overview

Appendix B

Landfill Operations Overview

B.1. ICDF LANDFILL

The INEEL CERCLA Disposal Facility (ICDF) waste operations flow chart assumes that all waste characterization and waste profile approvals meet all the requirements of the appropriate unit from the ICDF Complex. A brief description of each of the proposed steps is provided below:

1. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-generated wastes from the Idaho National Engineering and Environmental Laboratory (INEEL) can be transported to the ICDF Complex for disposal. The disposal of wastes will be based on approval of a waste profile for each specific type of waste and an approved remedial design/remedial action (RDRA) Workplan for the specific CERLCA site. The remedial action contractors at each specific CERCLA site will be responsible for excavation of wastes, obtaining radiation control technician (RCT) release prior to transport, and transportation of the waste to the Staging, Sizing, Storage, and Treatment facility SSSTF.

2. When the waste load arrives at the SSSTF, BBWI will inspect the waste profile and check it against the Integrated Waste Tracking System (IWTS) database to ensure it is approved for disposal at the ICDF. If the waste load is approved for disposal, it will be weighed and visually inspected against the waste profile. If the waste is not approved for disposal, it will be staged until the issue is corrected or the waste will be returned to the generator CERCLA site.

3. If the waste is approved for disposal, the truck will be directed to the assigned disposal location within the landfill cell.

4. The waste will then be dumped or unloaded at the work face. Water spray will be used, if necessary, to minimize dust generation.

5. When the truck has finished unloading waste, it will be moved to another area within the cell that is away from the active face of the landfill.

6. The outside of the truck and empty waste container will be surveyed by an RCT to ensure no detectable contamination is present. If contamination is identified on the truck or container, it will be removed by brushing, scraping, or other dry decontamination methods.

7. Following an acceptable radiation sweep by the RCT, the truck and empty waste container will be weighed and released to return to the CERCLA RA site.

8a. The waste will be spread within the active waste tracking grid(s) to approximately 1-foot thick and compacted. Additional water will be added as necessary to aid in compaction and reduce voids.

8b. For debris such as containers, drums, etc. a location will be identified at the working face for placement of the debris. Sufficient soil waste will be available for placement around the debris.

9a. Compaction of the soil wastes will be verified by observing the number of passes by the waste placement equipment or compactor. The final waste location will be input into IWTS.

Compaction of soil wastes will be studied during initial start-up of the landfill to identify correlations between maximum dry density and the number of passes of the compaction equipment. Detailed operations and quality control aspects of compaction of wastes will be included with the detailed operating procedures being developed by INEEL.

9b. Debris will be placed and surrounded by compacted soil wastes. Depending on the type of debris, recommendations from the Waste Placement Plan will be followed to ensure adequate compaction of soil waste around the debris. The final debris location will be input into IWTS.

10. Throughout waste placement operations during each day, water will be added to the waste surface to minimize the generation of dust. Alternative dust control materials may be used to comply with Air Emission Standards.

11. On a daily basis, environmental, safety, and health (ES&H) and operations personnel will inspect the cell to ensure the wastes are graded and compacted to minimize the potential for migration. If necessary, dust control materials or temporary covers may be used to minimize the potential for migration of wastes.

B.1.1 ICDF Evaporation Pond

The ICDF evaporation pond will accept three different waste streams which include:

- Leachate generated from the ICDF landfill
- Decontamination water from the SSSTF unit
- Other CERCLA liquid wastes from INEEL that have been characterized and have an approved waste profile.

The ICDF evaporation pond waste operations flow chart assumes that all waste characterization, and waste profile approvals meet the appropriate ICDF Complex waste acceptance criteria.. A brief description of each of the proposed steps is provided below:

1. Approved CERCLA liquid waste will be transported from other CERCLA sites on the INEEL by RA subcontractors or BBWI.

2. When the waste arrives at the SSSTF, BBWI will inspect the waste profile and check it against the Integrated Waste Tracking System (IWTS) database to ensure it is approved for disposal at the ICDF evaporation pond. If the waste load is approved for disposal, it will be weighed. If the waste is not approved for disposal, it will be staged until the issue is corrected or the waste will be returned to the generator CERCLA site.

3. The waste profile will include information on Total Suspended Solids (TSS). If no significant TSS is present based on visual observations at the SSSTF, the waste will be directed to the Evaporation Pond Unloading Station. If significant TSS is present, the waste will be directed to the SSSTF decontamination pad.

4. For wastes off-loaded at the SSSTF decontamination pad, the TSS will be removed using the decontamination pad facilities and the liquid will be pumped to the Evaporation Pond for disposal. Specific information regarding the SSSTF decontamination pad is available in the August 2001 SSSTF RD/RA Work Plan, Appendix K, DOE/ID-10859, Operation and Maintenance Plan.

5. For wastes disposed of at the Evaporation Pond Unloading Station, a quick connect hose will be connected to the tank or truck and the liquid will gravity drain to a sump where it will be pumped to the Evaporation Pond.

6. The ICDF landfill will generate leachate following precipitation events. The leachate will gravity drain to the leachate collection sumps where the levels will be monitored for depth.

7. The leachate from the ICDF landfill sump will be pumped to the evaporation ponds. A high flow and low flow pump will be installed in the landfill sump to handle the expected range of leachate during the life of the landfill. The Crest Pad Building will include flow meters and control panels for operation and recording of critical data.

8. Raw water makeup capabilities will be provided from the INEEL raw water system to keep the liquid level of the evaporation ponds above any potential sediments. The sediments will be kept under water to prevent any potential migration due to drying out and dust generation. Sediments that accumulate in the evaporation pond will be sprayed using a nearby raw water hose bib to move the sediments to the low area of the pond and keep the sediments confined to as small as area as possible. This will minimize the area of sediments and will also minimize the addition of raw makeup water.

9. The decision will be made by the operations personnel as to which cell of the evaporation pond will be active at any one time. The influent piping has the capability to split flows into either cell of the evaporation pond.

10. For wastes other than leachate from the ICDF landfill, the specific evaporation pond cell that receives the load of wastes will be recorded on the waste profile.

Figures B-1 and B-2 present flow diagrams of the ICDF landfill waste operations and evaporation pond operations, respectively.

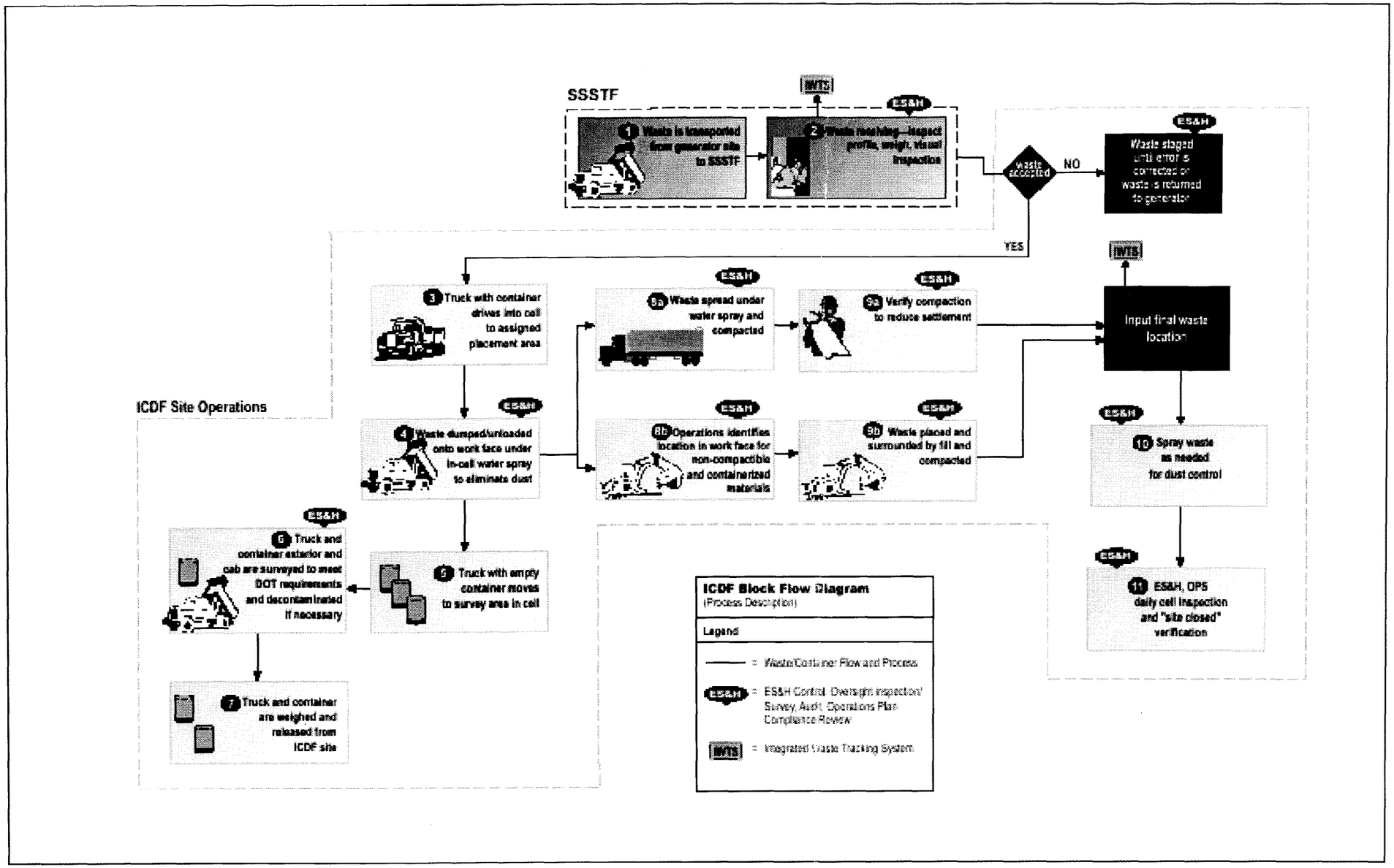


Figure B-1. ICDF Landfill Waste Operations.

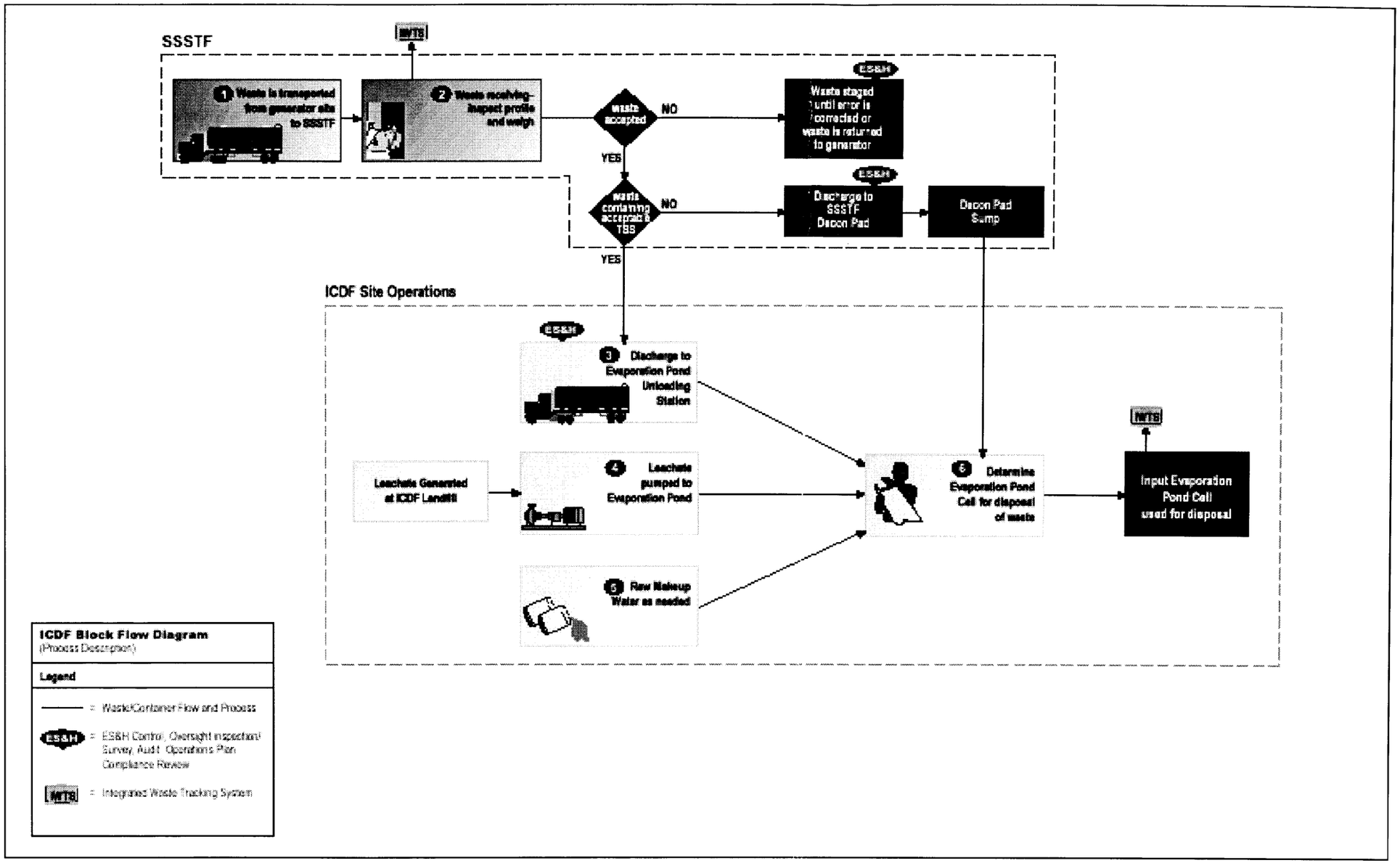


Figure B-2. ICDF Evaporation Pond Waste Operations.